

REMARKS

Claims 41-50 and 53-71 were pending in the present application. Claims 55-57 have been amended herein; and claims 58-63 and 68-69 have been canceled herein. Support for amended claims 55-57 can be found throughout the specification and original claims, for example, in original claims 55-57. No new matter has been added. Upon entry of the present amendments, claims 41-50, 53-57, 64-67, and 70-71 will be pending.

As a preliminary matter, Applicants thank the Examiner for acknowledging that claims 41-42, 44-50, 54, and 70 are allowable.

I. The Claimed Invention is Novel

Claims 43, 53, 55-56, and 64 stand rejected under 35 U.S.C. § 102(b) for allegedly being anticipated by Ma et al. (*Synthetic Communications*, 1997, 27(14), 2445-2453); or Montedison (GB 2,101,600); or Cass et al. (*Journal of the Chemical Society*, Perkin Transactions 1, 1991, (11), 2683-2686); or Gourdie et al. (*Journal of Medicinal Chemistry*, 1990, 33(4), 1177-1186); or Fleming et al. (*Tetrahedron Letters*, 1979, (34), 3205-3208); or Cai et al. (*Journal of the American Chemical Society*, 1993, 115(16), 7192-7198); or Barrett et al. (*Journal of Organic Chemistry*, 1986, 51(25), 4840-4856); or Bunce et al. (*Journal of Organic Chemistry*, 1993, 58(25), 7143-7148); or Lafon (US 4,013,776); or Kalgutkar et al. (*Journal of Medicinal Chemistry*, 1998, 41(24), 4800-4818); or Cowart et al. (*Journal of Medicinal Chemistry*, 1998, 41(14), 2636-2642); or Dannhardt et al. (*Die Pharmazie*, 1997, 52(6), 428-436). In particular, the Office alleges that each of these documents “describes at least one compound falling within the scope of claim 43, 53, 55-56, and Kalgutkar et al. or Cowart et al. or Dannhardt et al. also indicate that the relevant compounds therein have pharmaceutical use.” (*See*, Action at page 4). Applicants traverse the rejection and respectfully request reconsideration thereof.

A. Ma et al.

The Office alleges that the ethyl ester of compound 9 reported in Ma et al. (hereinafter the “Ma reference”) anticipates the claimed invention. Applicants respectfully disagree. Neither compound 9 nor its ethyl ester fall within the scope of claims 43, 53, 55-56, and 64. Moreover, Applicants’ undersigned representative is unable to locate any portion of the Ma reference which

reports the ethyl ester of compound 9. Accordingly, Applicants respectfully assert that claims 43, 53, 55-56, and 64 are not anticipated by the Ma reference, and request that this rejection is withdrawn.

B. Montedison

The Office alleges that compounds 12 and 13 reported in Montedison (hereinafter the “Montedison reference”) anticipate the claimed invention. Applicants respectfully disagree. Neither compound 12 nor compound 13 possess the bicyclic core that the compounds of claim 43 possess. Further, neither compound 12 nor compound 13 possess two oxygen atoms in the Y position as the compounds claimed in claim 53 possess. Moreover, neither compound 12 nor compound 13 is claimed in claim 55. Accordingly, Applicants respectfully assert that claims 43, 53, 55-56, and 64 are not anticipated by the Montedison reference, and request that this rejection is withdrawn.

C. Cass et al.

The Office alleges that compound 16 reported in Cass et al. (hereinafter the “Cass reference”) anticipates claim 57 of the instant application. (*See*, Action at page 4). Applicants respectfully disagree. Applicants note that claim 57 is not subject to the novelty rejection set forth by the Office, and compound 16 does not fall within the scope of any of claims 43, 53, 55-56, and 64. Further, claim 57 is a method claim. Applicants’ undersigned representative is unable to locate any portion of the Cass reference which teaches or suggests that the compounds disclosed therein can be used in any of the methods recited by Applicants. Accordingly, Applicants respectfully assert that the Cass reference does not anticipate the claimed invention, and request that this rejection is withdrawn.

D. Gourdie et al.

The Office alleges that compound 25c reported in Gourdie et al. (hereinafter the “Gourdie reference”) anticipates claim 57 of the instant application. (*See*, Action at pages 4-5). Applicants respectfully disagree. Applicants note that claim 57 is not subject to the novelty rejection set forth by the Office, and compound 25c does not fall within the scope of any of claims 43, 53, 55-56, and 64. Further, claim 57 is a method claim. Applicants’ undersigned representative is unable to locate any portion of the Gourdie reference which teaches or suggests

that the compounds disclosed therein can be used in any of the methods recited by Applicants. Accordingly, Applicants respectfully assert that the Gourdie reference does not anticipate the claimed invention, and request that this rejection is withdrawn.

E. Fleming et al.

The Office alleges that the present invention is anticipated by the compounds reported at page 3206 of Fleming et al. (hereinafter the “Fleming reference”). Applicants respectfully disagree. Applicants’ undersigned representative is unable to locate any compound at page 3206 of the Fleming reference which anticipates any compound of the claimed invention. None of the compounds reported therein possess the bicyclic core possessed by compounds of claim 43. In addition, the compounds reported at page 3206 of the Fleming reference do not possess two oxygen atoms in the Y position as the compounds claimed in claim 53 possess. Accordingly, Applicants respectfully assert that the Fleming reference does not anticipate the claimed invention and request that this rejection is withdrawn.

F. Cai et al.

The Office alleges that compounds 13a and 13b reported in Cai et al. (hereinafter the “Cai reference”) anticipate the claimed invention. Applicants respectfully disagree. Compounds 13a and 13b do not possess the amino substituent that the compounds claimed in claim 43 possess. Further, neither of these compounds are claimed in claim 55. Accordingly, Applicants respectfully assert that the Cai reference does not anticipate the claimed invention, and request that this rejection is withdrawn.

G. Barrett et al.

The Office alleges that compound 35a reported in Barrett et al. (hereinafter the “Barrett reference”) anticipates the claimed invention. Applicants respectfully disagree. Compound 35a does not possess the bicyclic core that the compounds claimed in claim 43 possess. Further, compound 35a does not possess two oxygen atoms in the Y position as the compounds claimed in claim 53 possess, nor is it claimed in claim 55. Accordingly, Applicants respectfully assert that the Barrett reference does not anticipate the claimed invention, and request that this rejection is withdrawn.

H. Bunce et al.

The Office alleges that compound 34c reported in Bunce et al. (hereinafter the “Bunce reference”) anticipates the claimed invention. Applicants respectfully disagree. Compound 34c does not possess the bicyclic core that the compounds claimed in claim 43 possess. Further, compound 34c requires a methyl substituent at the R₂ position and possess an eight carbon chain, whereas the compounds claimed in claim 53 have hydrogen at the R₂ position and possess a six carbon chain. Compound 34c is not claimed in claim 55. Accordingly, Applicants respectfully assert that the Bunce reference does not anticipate the claimed invention, and request that this rejection is withdrawn.

I. Lafon

The Office alleges that examples 12, 13, and 15 reported in Lafon (hereinafter the “Lafon reference”) anticipate the claimed invention. Applicants respectfully disagree. Examples 12, 13, and 15 do not possess the bicyclic core that the compounds claimed in claim 43 possess. Further, examples 12, 13, and 15 do not possess two oxygen atoms in the Y position as the compounds claimed in claim 53 possess, nor are any of them claimed in claim 55. Accordingly, Applicants respectfully assert that the Lafon reference does not anticipate the claimed invention, and request that this rejection is withdrawn.

J. Kalgutkar et al.

The Office alleges that compounds 58, 59, and those reported in Table 3 of Kalgutkar et al. (hereinafter the “Kalgutkar reference”) anticipate the claimed invention. Applicants respectfully disagree. Compounds 58, 59, and those reported in Table 3 of the Kalgutkar reference do not possess the bicyclic core that the compounds claimed in claim 43 possess. Further, compounds 58, 59, and those reported in Table 3 of the Kalgutkar reference do not possess two oxygen atoms in the Y position as the compounds claimed in claim 53 possess; nor are any of these compounds claimed in claim 55. Accordingly, Applicants respectfully assert that the Kalgutkar reference does not anticipate the claimed invention, and request that this rejection is withdrawn.

K. Cowart et al.

The Office alleges that compounds 21, 22, and those reported in Table 4 of Cowart et al. (hereinafter the “Cowart reference”) anticipate the claimed invention. Applicants respectfully

disagree. Compounds 21, 22, and those reported in Table 4 do not possess the bicyclic core that the compounds claimed in claim 43 possess. Further, compounds 21, 22, and those reported in Table 4 do not possess two oxygen atoms in the Y position as the compounds claimed in claim 53 possess; nor are any of these compounds claimed in claim 55. Accordingly, Applicants respectfully assert that the Cowart reference does not anticipate the claimed invention, and request that this rejection is withdrawn.

L. Dannhardt et al.

The Office alleges that compound 13a reported in Dannhardt et al. (hereinafter the “Dannhardt reference”) anticipates the claimed invention. Applicants respectfully disagree. Compound 13a does not possess the amino substituent that the compounds claimed in claim 43 possess. Further, compound 13a is not claimed in claim 55. Accordingly, Applicants respectfully assert that the Dannhardt reference does not anticipate the claimed invention, and request that this rejection is withdrawn.

II. The Claimed Invention is Enabled

Claims 57-63, 65-69, and 71 stand rejected under 35 U.S.C. § 112, first paragraph, for allegedly failing to meet the enablement requirement. While acknowledging that the specification is enabling for inhibiting histone deacetylase, the Office alleges that the specification “does not reasonably provide enablement for the instant compounds in the treatment of cancer, cardiac hypertrophy, a hematological disorder, an auto-immune disease, a neurological condition, a genetic-related metabolic disorder, a peroxisome biogenesis disorder, adrenoleukodystrophy, stimulating hematopoietic cells ex vivo, ameliorating protozoal parasitic infection, accelerating wound healing, protecting hair follicles, specifically cancers selected from the group consisting of breast cancer, colon cancer, colorectal cancer, esophageal cancer, glioma, lung small and non-small cell cancers, leukemia, neuroblastoma, prostate cancer, thoracic cancer, melanoma, ovarian cancer, cervical cancer and renal cancer.” (*See*, Action at pages 2-3). Applicants respectfully disagree. However, solely to advance prosecution and without disclaimer of subject matter, claim 57 has been amended herein, and claims 58-63 and 68-69 have been canceled herein. Applicants respectfully assert that these amendments are sufficient to

overcome this rejection. Applicants would also like to emphasize that the Office has acknowledged that the “specification is enabling for inhibiting histone deacetylase.” (*See*, Action at page 2).

In view of the foregoing, Applicants respectfully assert that the claimed invention is enabled, and request that this rejection is withdrawn.

III. Conclusion

Applicants respectfully submit that the claims are in condition for allowance. An early notice of the same is earnestly solicited. The Examiner is invited to contact Applicants' undersigned representative at (215) 981-4864 to resolve any remaining issues.

Respectfully submitted,

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